

REMARKS

This Application has been carefully reviewed in light of the Office Action which was electronically mailed April 21, 2008. Claims 1-12 and 14-51 are pending in this application. Of these claims, Claims 17-29 and 33-35 have been previously withdrawn. Claims 1-12, 14-16, 30-32, 36-46, and 48-51 are rejected. Applicant respectfully requests reconsideration and favorable action in this case in view of the following remarks.

Allowable Subject Matter

Applicant appreciates the Examiner's indication that Claim 47 is allowed.

Claim Rejections - 35 USC § 103

Claims 1-9, 30, 32, 36, and 38-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,417,692 to *Goble* et al. ("*Goble*") in view of U.S. Patent No. 5,338,197 to Kwan ("*Kwan*"). Applicant respectfully traverses these rejections for the reasons set forth below.

Claims 1, 30, and 36 each include limitations generally directed to a self-drilling screw portion of a bone anchor including a rounded interior surface enclosing a protrusion recess. The rounded interior surface includes a single, continuous recess thread extending a majority of a length of the protrusion recess. The recess thread is configured to rotatably retain a threaded component at least partially in the protrusion recess.

Claims 1, 30, and 36 are patentable because it would not be obvious to modify *Goble* to include the threaded passageway 60 of *Kwan*. A *prima facie* case of obviousness cannot be supported by a mere statement that the references relied upon teach all aspects of the claimed invention. MPEP § 2143.01(IV). The Office Action must provide an objective reason to combine the teachings of the references. *Id.* Here, the Office Action does not offer any objective reason to combine the references. Rather, it merely states that *Goble* lacks the threads, and *Kwan* discloses the threads. (Office Action p. 6). Such statement is not a clear articulation of the reason why the claimed invention would have been obvious. MPEP § 2142; *see also KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007).

Moreover, *Goble* teaches away from the modification proposed by Examiner, and such modification would render *Goble* unsatisfactory for its intended purpose. MPEP § 2141.02(VI), 2143.01(V). If *Goble* were modified to include the threaded passageway 60 of *Kwan*, in order to pull the broken bone end faces together into close fitting engagement (*Goble*, Col. 4, lines 33-35), one bone end would have to be rotated with respect to the other bone end. Rotation to join broken bone ends would be impossible--the bone ends must snap together. (*Goble*, Col. 1, line 62 - Col. 2, line 1). There is no situation in which a patient's broken bone could be joined by rotating one bone with respect to the other. According to *Goble*, the "surgical procedure for maintaining broken bone ends together during healing" includes opening the patient's skin at the broken bone ends and turning the members individually into the broken bone end faces and coupling the members. (*Goble*, Col. 4, lines 11-35). Such procedure could not be accomplished with a threaded recess because the flesh, tendons and ligaments that remain intact could not be rotated along with the broken bone ends. Also, if one bone end is rotated with respect to the other, the joined bone portions are likely not to align in correct anatomical position after the engagement. Accordingly, any modification of *Goble* to include the threads of *Kwan* would be improper because it would render *Goble* unsatisfactory for its intended purpose of maintaining bone ends together during healing. (*Goble*, Col. 4, lines 11-12). MPEP § 2143.01(V).

Accordingly, as repeatedly argued by Applicant, *Goble* could not be modified to include a single, continuous recess thread configured to rotatably retain a threaded component. Therefore, the modification of *Goble* to include the threaded passageway 60 of *Kwan* is improper and cannot be used to obviate Claims 1, 30, and 36, which recite a single, continuous recess thread extending a majority of a length of a protrusion recess, the recess thread being configured to rotatably retain a threaded component at least partially within the protrusion recess. Applicant respectfully requests that the rejections of Claims 1, 30, and 36, and their dependent claims, be withdrawn.

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Goble* and *Kwan* and further in view of U.S. Patent No. 5,662,683 to Kay ("Kay"). Claims 11, 31 and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Goble* and *Kwan* and further in view of U.S. Patent No. 6,333,971 to

McCrory (“*McCrory*”). Applicant respectfully traverses these rejections for the reasons set forth below.

Claims 10-11, 31, and 37 each depend from Claims 39, 40, and 41 respectively and incorporate all the respective limitations thereof. In rejecting these claims, the Office Action relies on the combination of *Goble* and *Kwan* as disclosing each of the limitations of each claim’s respective base claim. As discussed above, the combination of *Goble* and *Kwan* is improper and cannot be used to obviate each of the limitations of the respective base claims, and neither *Kay* nor *McCrory* cures this deficiency. Therefore, Applicant contends that Claims 10-11, 31, and 37 are allowable for at least the same reasons discussed above with regard to their respective base claims. Accordingly, Applicant respectfully requests that the rejections of Claims 10-11, 31, and 37 be withdrawn.

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Goble* and *Kwan*. Applicant respectfully traverses these rejections for the reasons set forth below.

Claim 14 depends from Claim 12 and incorporates all the limitations thereof. In rejecting Claim 14, the Office Action relies on the combination of *Goble* and *Kwan* as disclosing each of the limitations Claim 12. As discussed above, the combination of *Goble* and *Kwan* is improper and does not disclose, teach, or suggest each of the limitations of Claim 12, and the Examiner’s material obviousness arguments (with which Applicant does not agree) do not cure this deficiency. Accordingly, Applicant respectfully requests that the rejection of Claim 14 be withdrawn.

Claim Rejections - 35 USC § 102

Claims 12, 14-16 and 43-46 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,417,692 to *Goble et al.* (“*Goble*”). Applicant respectfully traverses these rejections for the reasons set forth below.

Claim 12 includes limitations directed to a driver recess that is configured to retain an insert positioned at least partially within a threaded protrusion recess of the protrusion of the

bone anchor. The insert provides a friction fit between the driver and the bone anchor during insertion of the bone anchor.

As previously argued by Applicant (and unaddressed by the Examiner), *Goble* does not disclose, teach, or suggest the structural elements of the driver recess of Claim 12. Rather, *Goble* teaches a turning tool 23 of *Goble* has a "cavity formed therein whose interior wall is sided, like that of the sided tool engaging section 22, and is for making contact therewith to transfer tool 23 turning into member 11 or 12." (Col. 7, lines 38-41). *Goble* does not state that the tool 23 is configured to retain an insert. Accordingly, *Goble* does not disclose, teach, or suggest a driver recess configured to retain an insert positioned at least partially within a threaded protrusion recess of the protrusion of the bone anchor to provide a friction fit between the driver and the bone anchor during insertion of the bone anchor.

For at least this reason, Applicant respectfully contends that *Goble* does not disclose, teach, or suggest each of the limitations of Claim 12. Accordingly, Applicant respectfully requests that the rejections of Claim 12, and Claims 16 and 43-46, which depend therefrom, be withdrawn.

Claim 15 includes limitations directed to a distance between a driver edge and a rim that is approximately equal to a distance between a shoulder of a bone anchor and an end of a protrusion such that when the rim contacts the surface of the bone during insertion, the end of the protrusion will be approximately level with the surface of the bone.

The Office Action does not even cite to a portion of *Goble* that discloses these elements of Claim 15. Applicant pointed out this deficiency in the Response to Office Action filed January 23, 2008, but it was not addressed by the Examiner. Rather, the Office Action merely continues to state, without any support, that "[t]his also has a distance that is approximately equal to the distance between the shoulder of the bone anchor and the end of the protrusion." (Office Action p. 2). Applicant respectfully disagrees. The sections of *Goble* that discuss the driver 23 do not disclose, teach, or suggest a distance between the driver edge and the rim of the driver that is approximately equal to a distance between the

shoulder of the bone anchor and an end of the protrusion. (Col. 7, lines 34-41 and lines 56-61).

For at least this reason, Applicant respectfully contends that *Goble* does not disclose, teach, or suggest each of the limitations of Claim 15, and therefore the rejection of Claim 15 should be withdrawn.

Goble also fails to disclose many limitations of Applicant's dependent claims. For example, Claim 43 includes limitations directed to an insert being retained in the driver recess. The insert is positioned at least partially within a threaded protrusion recess of the protrusion of the bone anchor to provide a friction fit between the driver and the bone anchor during insertion of the bone anchor. Once again, the Office Action did not respond to Applicants arguments with respect to these limitations. It merely continues to contend that "the bottom portion of the tip (the tapered bottom portion of 23) forms a rim outside of a second portion, which may be considered 15 (also an insert)" discloses these limitations. (Office Action p. 2). Applicant respectfully disagrees. Element 15 of *Goble* is a hollow cylinder of male connector 14. (*Goble*, Col. 6, lines 4-12). While male connector 14 may ultimately be received by cylindrical cavity 19 of the female connector, it has no function with respect to installation of either male connector 14 or female connector 13. Also, hollow cylinder 15 is not retained in a recess of tool 23 and positioned in a protrusion recess of female connector 13 to provide a friction fit between tool 23 and female connector 13 during installation. Accordingly, Applicant respectfully contends that Claim 43 is allowable over *Goble* for at least this additional reason.

Claim 42 includes limitations directed to a distance between a driver edge and a rim that is approximately equal to a distance between a shoulder of a bone anchor and an end of a protrusion such that when the rim contacts the surface of the bone during insertion, the end of the protrusion will be approximately level with the surface of the bone. Accordingly, Applicant contends that Claim 42 is patentably distinguishable from *Goble* for at least reasons analogous to those discussed above with regard to Claim 15.

Claim 42 also includes limitations directed to a silicon insert being retained in the driver recess. The insert is positioned at least partially within a threaded protrusion recess of the protrusion of the bone anchor to provide a friction fit between the driver and the bone anchor during insertion of the bone anchor. Accordingly, Applicant contends that Claim 42 is patentably distinguishable from *Goble* for at least additional reasons analogous to those discussed above the regard to Claim 43.

CONCLUSION

Applicant has made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests allowance of all pending claims.

No fee is believed to be due. However the Commissioner is hereby authorized to charge any other fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

If there are matters that can be discussed by telephone to further the prosecution of this application, Applicant respectfully requests that the Examiner call his attorney at the number listed below.

Respectfully submitted,

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